REMARKS

The Applicant thanks the Examiner for the careful examination of this application.

Claims 1 - 20 are pending. Of the pending claim set, Claims 1-9, 19 and 20 are rejected and Claims 10-18 are withdrawn from consideration.

Independent Claim 1 positively recites a cooling conduit disposed along a groove created in the first side, disposed within the channel, and disposed adjacent to the aperture. Claim 1 also positively recites a mounting block coupled to the cooling conduit. These advantageously claimed features are not taught or suggested by the patents granted to Leahey et al., Siegfried et al., or Najm et al.; either alone or in combination.

Leahey et al. does not teach the advantageously claimed invention because Leahey et al. does not teach a cooling conduit disposed within a channel (column 9 line 53 through column 10 line 9, FIGS. 10 and 12). The Applicant respectfully traverses the assertion in the Office Action (page 3 lines 18-19) that "the uppermost socket" (element 1216) "is used as a mounting block to couple the cooling conduit to a coolant source". The Applicant submits that Leahey et al. specifically teaches that element 1216 is a bulb socket (column 9 line 63), but not a mounting block as

asserted in the Office Action (nor does Leahey et al. teach that "the upper most socket (Item 1216) has a larger volume than the other sockets" as asserted on page 3 lines 16-17 in the Office Action). In addition, the Applicant submits that Leahey et al. does not teach the advantageously claimed cooling conduit disposed within a channel (column 9 line 53 through column 10 line 9, FIGS. 10 and 12); therefore, by definition Leahey et al. can not teach a mounting block that is coupled to that cooling conduit.

The Applicant notes that the Office Action points to a single element, namely 908, to teach different advantageously claimed elements. Specifically, the Office Action states that element 908 is the advantageously claimed assembly (Office Action bottom of page 2) containing the second side (Office Action page 3 lines 5-6) and it is also the mounting block (Office Action page 3 line 15). Conversely, the Applicant claims a housing containing the second side and the mounting block as separate elements.

The Applicant also notes that the Office Action specifically states (page 3) that "Leahey fails to teach a cooling conduit and mounting clock as recited in the claimed invention."

Like Leahey et al., Siegfried et al. does not teach the advantageously claimed invention because Siegfried et al. does not teach a cooling conduit

disposed within a channel that is disposed through the surface, or a mounting block coupled to the cooling conduit (column 4 lines 55-60, column 5 line 65 through column 6 line 4). Moreover, like Leahey et al. and Siegfried et al., Najm et al. does not teach the advantageously claimed invention because Najm et al. does not teach a cooling conduit disposed within the channel or a mounting block coupled to the cooling conduit (column 2 lines 44-54, FIG. 2). Therefore, combining the teachings of Leahey et al., Siegfried et al., and Najm et al. will not teach the advantageously claimed elements of a cooling conduit disposed along a groove created in the first side, disposed within the channel, and disposed adjacent to the aperture within the channel and also a mounting block coupled to the cooling conduit.

The Applicant notes that the pipes 24, which are erroneously called the "cooling conduit" at the top of page 4 of the Office Action, does not "flows though a passageway 27 in mounting block (assembly 3)", as stated in the Office Action (page 4). The Applicant submits that pipes 24 receives "coolant from coolant source 25" (column 2 lines 42-43) but passageways 26 and 27 receive "coolant sourced from a coolant source 100" (column 2 lines 44-54). Furthermore, the cooling conduit 24 does not flow through passageway 27 (FIG. 2) as stated on page 4 of the Office Action. Moreover, the pipes 24 of Najm et al. cannot be the advantageously claimed cooling conduit because the pipes 24 are not "disposed along a groove created in the first side" or "disposed within the channel" as advantageously claimed (column 2 lines 42-44, FIG. 2).

The Applicant respectfully traverses the statement on page 4 of the Office Action that "Najm et al teaches in col. 1 lines 50-63 that placing the cooling conduit around the center adjacent the window 12 also enhances the temperature uniformity of the wafer." The Applicant submits that Najm et al. teaches the exact opposite – Najm et teaches that "the added effects of edge 11 cooling" is "very undesirable" (column 2 lines 58-61). Therefore, Najm et al. teaches away from the advantageously claimed cooling "adjacent to the aperture", and also teaches away from being combined with Leahey et al. "as the means of temperature control of the aperture as an alternative to the fan cooling used by Leahey et al."

Regarding Claim 9, the Applicant respectfully traverses the assertion in the Office Action (page 4) that "Leahey discloses the groove has a radius substantially equal to the radius of the cooling conduit (FIG. 12 Item 1214)." The Applicant submits that Leahey et al. teaches that element 1214 labeled a 'channel' (column 9 line 63); but Leahey et al. does not teach the 'groove created in the first side' nor the 'cooling conduit', that are advantageously claimed as different elements from the 'channel'.

Therefore, the Applicant respectfully traverses the rejection of Claim 1 and respectfully asserts that Claim 1 is patentable over the patents granted to Leahey et al., Siegfried et al., and Najm et al.; either alone or in combination. Furthermore,

Claims 2-9 are allowable for depending on allowable independent Claim 1 and, in combination, including limitations not taught or described in the references of record.

Independent Claim 19 positively recites a cooling conduit disposed along a groove created in the first side, disposed within the channel, and disposed adjacent to the aperture. Claim 19 also positively recites a mounting block coupled to the cooling conduit. These advantageously claimed features are not taught or suggested by the patents granted to Leahey et al., Siegfried et al., or Najm et al.; either alone or in combination.

Leahey et al. does not teach the advantageously claimed invention because Leahey et al. does not teach a cooling conduit disposed within a channel (column 9 line 53 through column 10 line 9, FIGS. 10 and 12). The Applicant respectfully traverses the assertion in the Office Action (page 3 lines 18-19) that "the uppermost socket" (element 1216) "is used as a mounting block to couple the cooling conduit to a coolant source". The Applicant submits that Leahey et al. specifically teaches that element 1216 is a bulb socket (column 9 line 63), but not a mounting block as asserted in the Office Action (nor does Leahey et al. teach that "the upper most socket (Item 1216) has a larger volume than the other sockets" as asserted on page 3 lines 16-17 in the Office Action). In addition, the Applicant submits that Leahey et al. does not teach the advantageously claimed cooling conduit disposed within a

channel (column 9 line 53 through column 10 line 9, FIGS. 10 and 12); therefore, by definition Leahey et al. can not teach a mounting block that is coupled to that cooling conduit.

The Applicant notes that the Office Action points to a single element, namely 908, to teach different advantageously claimed elements. Specifically, the Office Action states that element 908 is the advantageously claimed assembly (Office Action bottom of page 2) containing the second side (Office Action page 3 lines 5-6) and it is also the mounting block (Office Action page 3 line 15). Conversely, the Applicant claims a housing containing the second side and the mounting block as separate elements.

The Applicant also notes that the Office Action specifically states (page 3) that "Leahey fails to teach a cooling conduit and mounting clock as recited in the claimed invention."

Like Leahey et al., Siegfried et al. does not teach the advantageously claimed invention because Siegfried et al. does not teach a cooling conduit disposed within a channel that is disposed through the surface, or a mounting block coupled to the cooling conduit (column 4 lines 55-60, column 5 line 65 through column 6 line 4). Moreover, like Leahey et al. and Siegfried et al., Najm et al. does not teach the advantageously claimed invention because Najm et al. does not teach

a cooling conduit disposed within the channel or a mounting block coupled to the cooling conduit (column 2 lines 44-54, FIG. 2). Therefore, combining the teachings of Leahey et al., Siegfried et al., and Najm et al. will not teach the advantageously claimed elements of a cooling conduit disposed along a groove created in the first side, disposed within the channel, and disposed adjacent to the aperture within the channel and also a mounting block coupled to the cooling conduit.

The Applicant notes that the pipes 24, which are erroneously called the "cooling conduit" at the top of page 4 of the Office Action, does not "flows though a passageway 27 in mounting block (assembly 3)", as stated in the Office Action (page 4). The Applicant submits that pipes 24 receives "coolant from coolant source 25" (column 2 lines 42-43) but passageways 26 and 27 receive "coolant sourced from a coolant source 100" (column 2 lines 44-54). Furthermore, the cooling conduit 24 does not flow through passageway 27 (FIG. 2) as stated on page 4 of the Office Action. Moreover, the pipes 24 of Najm et al. cannot be the advantageously claimed cooling conduit because the pipes 24 are not "disposed along a groove created in the first side" or "disposed within the channel" as advantageously claimed (column 2 lines 42-44, FIG. 2).

The Applicant respectfully traverses the statement on page 4 of the Office Action that "Najm et al teaches in col. 1 lines 50-63 that placing the cooling conduit around the center adjacent the window 12 also enhances the temperature

uniformity of the wafer." The Applicant submits that Najm et al. teaches the exact opposite – Najm et teaches that "the added effects of edge 11 cooling" is "very undesirable" (column 2 lines 58-61). Therefore, Najm et al. teaches away from the advantageously claimed cooling "adjacent to the aperture", and also teaches away from being combined with Leahey et al. "as the means of temperature control of the aperture as an alternative to the fan cooling used by Leahey et al."

Therefore, the Applicant respectfully traverses the rejection of Claim 19 and respectfully asserts that Claim 19 is patentable over the patents granted to Leahey et al., Siegfried et al., and Najm et al.; either alone or in combination. Furthermore, Claim 20 is allowable for depending on allowable independent Claim 19 and, in combination, including limitations not taught or described in the references of record.

For the reasons stated above, this application is believed to be in condition for allowance. Reexamination and reconsideration is requested.

Respectfully submitted,

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